

WHAT IS CLAIMED:

1. A press for processing a web comprising:
a first press roll and a second press roll arranged to form at least one nip;
a first belt running through the at least one nip;
a second belt running through the at least one nip;
a sandwich stretch formed by the first and second belts being arranged after the
at least one nip; and
a first mechanism for driving the first belt; and
a second mechanism for driving the second belt.

2. The press of claim 1, wherein the at least one nip allows the first belt, the
second belt and the web disposed therebetween to travel therethrough.

3. The press of claim 1, wherein each of the first and second mechanisms are
arranged after the at least one nip.

4. The press of claim 1, wherein the web comprises one of a paper web, a
cardboard web, a tissue web, and a fibrous material web.

5. The press of claim 1, wherein the at least one nip comprises an extended nip.

6. The press of claim 1, wherein the first press roll comprises a shoe press roll and
wherein the second press roll comprises a cylindrical mating roll.

7. The press of claim 1, wherein at least one of the first and second belts comprises an air-permeable water-absorbent press felt.

8. The press of claim 1, wherein the first mechanism comprises a first guide roll and wherein the second mechanism comprises a second guide roll.

9. The press of claim 1, wherein the first belt is guided away from each of the web and the second belt after the sandwich stretch.

10. The press of claim 9, wherein the first mechanism comprises a driven following guide roll that guides away the first belt.

11. The press of claim 1, wherein the second belt is adapted to guide the web alone after the sandwich stretch.

12. The press of claim 11, wherein the second mechanism comprises a driven guide roll that guides away the web and the second belt.

13. The press of claim 12, wherein the second belt comprises an air-permeable water-absorbent press felt and wherein the driven guide roll is suctioned.

14. The press of claim 1, wherein the second belt comprises at least one of a non-water absorbent belt, a slightly water-absorbent belt, and a non-air-permeable transfer belt and a slightly air-permeable transfer belt.

15. The press of claim 1, wherein the second belt comprises at least one of an air-permeable press felt and a water-absorbent press felt.

16. The press of claim 15, wherein the second belt is guided, after the sandwich stretch, over at least one of a fixed guide element and a suctioned guide element.

17. The press of claim 1, wherein the second mechanism comprises at least one of a fixed guide element and a suctioned guide element.

18. The press of claim 1, further comprising a take-up element arranged after the sandwich stretch, wherein the second belt is adapted to transfer the web to the take-up element.

19. The press of claim 18, wherein the take-up element comprises a third belt.

20. The press of claim 19, further comprising a driven guide roll arranged downstream the take-up element, wherein the second belt is adapted to transfer the web to the take-up element and thereafter be guided by the driven guide roll.

21. The press of claim 1, further comprising a control unit coupled to the first and second mechanisms.

22. The press of claim 1, further comprising a control unit for controlling the first and second mechanisms.

23. The press of claim 1, further comprising a first sensor for use in controlling a speed of the first mechanism.

24. The press of claim 23, further comprising a second sensor for use in controlling a speed of the second mechanism.

25. The press of claim 24, further comprising a control unit for controlling the first and second mechanisms, the control unit receiving inputs from each of the first and second sensors.

26. The press of claim 1, wherein each of the first and second mechanisms comprise a belt drive.

27. A method of controlling a tension and/or a speed of at least two belts in a press that comprises a first press roll and a second press roll arranged to form at least one nip, a first belt running through the at least one nip, a second belt running through the at least one nip, a sandwich stretch formed by the first and second belts being arranged after the at least one nip, a first belt drive for driving the first belt, and a second belt drive for driving the second belt, the method comprising:

driving the first belt at a first speed; and

driving the second belt at a second speed,

wherein the first speed is substantially the same as the second speed at least in a region of the sandwich stretch.

28. The method of claim 27, further comprising moving the first belt, the second belt and the web disposed therebetween through the at least one nip before the sandwich stretch.

29. The method of claim 27, wherein each of the first and second belt drives are arranged after the at least one nip.

30. The method of claim 27, wherein the web comprises one of a paper web, a cardboard web, a tissue web, and a fibrous material web.

31. The method of claim 27, wherein the at least one nip comprises an extended nip.

32. The method of claim 27, wherein the first press roll comprises a shoe press roll and wherein the second press roll comprises a cylindrical mating roll.

33. The method of claim 27; further comprising controlling the first and second belt drives.

34. The method of claim 27, further comprising driving the second belt at a third speed after the second belt passes the second mechanism.

35. The method of claim 34, wherein the third speed is greater than the first and second speeds.

36. The method of claim 27, further comprising separating the first belt from the web after the sandwich stretch and driving the second belt at a third speed after the second belt passes the second belt drive.

37. The method of claim 36, wherein the third speed is greater than the second speed.

38. The method of claim 36, wherein the third speed is as much as approximately 4% greater than the second speed.

39. The method of claim 37, wherein the third speed is between approximately 0.1% and approximately 0.3% greater than the second speed.

40. The method of claim 27, further comprising separating the first belt from the web after the sandwich stretch and driving at least one of the first and second belts after the sandwich stretch at a third speed which is greater than a speed of the first and second belts before they enter the at least one nip.

41. The method of claim 40, wherein the third speed is greater than at least one of the first and second speeds.

42. The method of claim 41, wherein the third speed is as much as approximately 4% greater.

43. The method of claim 41, wherein the third speed is between approximately 0.1% and approximately 0.3% greater.

44. The method of claim 27, further comprising subjecting the second belt to a tensile stress after the sandwich stretch.

45. The method of claim 44, wherein the second belt supports the web during the subjecting.

46. The method of claim 27, further comprising subjecting the second belt to a higher tensile stress after passing through the at least one nip than before passing through the at least one nip.

47. The method of claim 46, wherein the higher tensile stress is as much as approximately 6 KN/m higher.

48. The method of claim 46, wherein the higher tensile stress is between approximately 0.2 KN/m and approximately 1.2 KN/m higher.

49. The method of claim 27, further comprising controlling each of the first and second belt drives.

50. The method of claim 27, further comprising controlling at least one of a speed and a tension of at least one of the first and second belts.

51. The method of claim 27, further comprising controlling at least one of a speed and a tension of the first and second belts by controlling the first and second belt drives.

52. The method of claim 27, further comprising controlling at least one of a speed and a tension of the first and second belts by controlling the first and second belt drives, whereby the first and second belt drives are controlled in a manner which minimizes a strain on the web.

53. The method of claim 27, further comprising transferring the web from the second belt to a pick-up element after the web passes the second belt drive.

54. The method of claim 53, further comprising guiding away the first belt after the sandwich stretch.

55. The method of claim 54, further comprising driving the second belt at a greater speed than the first belt after the second belt transfers the web to the pick-up element.

~~56.~~ A press for processing a web comprising:
a first press roll and a second press roll arranged to form at least one nip;
a first belt running through the at least one nip;
a second belt running through the at least one nip;
a sandwich stretch formed by the first and second belts being arranged after the at least one nip;
a driven guide roll for driving the first belt, the driven guide roll being arranged after the sandwich stretch;
a driven suctioned guide roll for driving the second belt, the driven suctioned guide roll being arranged after the sandwich stretch; and
a system for regulating and/or controlling a speed of each of the first belt and the second belt.